

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-19. (canceled)

20. (currently amended) A communications system comprising a plurality of client side and server side computing elements, each computing element supported by a distributed processing environment whereby distributed software objects in different physical parts of the system interact by passing messages via data communications links, the communications system including service generic code and service specific code, which is distributed between said plurality of computing elements during a service session, wherein the service generic code supports a plurality of differing types of service during a service session, said service generic code when in use comprising:

a session manager which performs functions generic to said plurality of differing types of service during service sessions;

~~wherein~~ for each type of said differing types of service, said session manager is arranged during a service session in which a plurality of participants participate, to generate an event messages, in response to a change of a session-related status of an individual participant in the session,

wherein a service-session event handler receives a logically uncombined event

~~transmitted in an event message generated in response to each change in the session-related status of at least some of said plurality of participants without any historical data each event message indicating at least one discrete change which has just occurred in the session-related status of an individual user of the session without any historical data, and to transmit said event messages to an event handler for processing.~~

21. (previously presented) The communications system as in claim 20, wherein the computing elements include:

a retailer server;

a plurality of third party servers, each third party server being arranged to have access to a data base for the storage and retrieval of service related data; and

a plurality of user terminals connected to the retailer server via a data communications network.

22. (previously presented) The communications system as in claim 21, wherein the third partly servers are connected remotely to the retailer server via communications links.

23. (previously presented) The communications system as in claim 21, wherein the third party servers are co-located with the retailer server.

24. (previously presented) The communications system as in claim 21, wherein the retailer server comprises one or more servers interconnected in a network.

25. (previously presented) The communications system as in claim 21, wherein at least one of said plurality of third party servers comprises a plurality of servers interconnected in a network.

26. (previously presented) The communications system as in claim 21, wherein at least one of the user terminals comprises a mobile communications terminal.

27. (currently amended) The communications system as in claim 20, wherein said service-session event handler comprises a pricing data processor for pricing a participant's usage of a service during a service session.

28. (previously presented) The communications system as in claim 27, wherein said pricing data processor is arranged to perform service-specific processing of said event messages.

29. (currently amended) The communications system as claimed in claim 20, wherein said service-session event handler comprises a service usage monitor for storing and/or analyzing usage of said services over statistically significant numbers

of service sessions.

30. (currently amended) The communications system as claimed in claim 20, wherein said service-session event handler comprises a cost data processor for costing a service provided by a third party during a service session.

31. (currently amended) The communications system as claimed in claim 20, wherein said service-session event handler comprises an event message multiplier for copying said event messages and distributing said copied messages to a plurality of event processors.

32. (currently amended) A session pricing manager apparatus arranged to perform a charging algorithm for a service session in a communications network, the session pricing manager apparatus being arranged to receive a plurality of logically uncombined events transmitted in respective event messages originating from the service session, ~~the event messages being arranged to inform a service session manager of a predetermined set of session related events,~~ each logically uncombined event indicating ~~at least one~~ a discrete change in the session related status of an individual participant in a session without any historical data, the session pricing manager apparatus comprising:
means to filter received logically uncombined events from at least some of the plurality of participants in the service-session to discard logically uncombined events

which are not, for the service in question, determinative of price; and

means to copy each filtered, logically uncombined event from at least some of the plurality of participants in the service-session, to a plurality of pricing engines to be logically combined in accordance with a defined charging algorithm to produce calculated price data for each participation in the session to allow a charge to be debited from an account of a responsible party for the participation.

33. (previously presented) The session pricing manager apparatus as in claim 32, wherein the actions, or changes in status, of at least one other participation within the service session is taken into account in the operation of the charging algorithm of the participation in question.

34. (currently amended) A communications apparatus comprising a plurality of client side and server side computing elements, each computing element supported by a distributed processing environment whereby distributed software objects in different physical parts of a communications system interact by passing messages via data communications links, the communications system including service generic code and service specific code, which is distributed between said plurality of computing elements during a service session, the system being arranged to generate a billing record for a designated user participating in a service session, in which a plurality of participants participate, the service session being provided by the communications system, the

apparatus further comprising:

an event router arranged to receive logically uncombined events transmitted in respective event messages, each of the logically uncombined events indicating events comprising a discrete changes which have just occurred in the a session-related status of an individual participants in said service session without any historical data;

a session pricing manager and a plurality of pricing engines arranged to generate a plurality of billing records from said logically uncombined events transmitted in the respective event messages indicating respective discrete changes in the session-related status of at least some of the individual participants of the service session, each billing record containing data indicating a charge for a different individual participant's participation in said service session,

wherein a billing record indicating a charge for a particular participant's participation in said service session includes data derived from logically uncombined events indicating respective discrete changes which have just occurred in the session-related status of other participants in said service session, such that the charge indicated for said particular participant is dependent on an event indicating a change in status of at least one of said other participants during said service session.

35. (currently amended) The communications apparatus as in claim 34, wherein said session pricing manager applies event filter rules to discard logically uncombined events conveyed by said-respective event messages which are not

determinative of price, and wherein said session pricing manager copies each of the filtered logically uncombined events to a plurality of participating pricing engines to be logically combined in accordance with a defined charging algorithm to generate a said billing record.

36. (currently amended) In a telecommunications system, an apparatus arranged to generate billing records for participation in a service session, in which a plurality of participants participate, provided by the telecommunications system, said apparatus comprising:

means to receive logically uncombined events transmitted in respective event messages indicating respective discrete changes ~~which have just occurred in the session-~~
related status of at least some of individual participants in said service session without any historical data; and

means to generate a plurality of billing records each containing data indicating a charge for a different individual participant's participation in said service session, wherein a billing record indicating a charge for a particular participant's participation in said service session includes data derived from logically uncombined events transmitted in respective event messages indicating respective discrete changes in the session-related status of at least one of the other participants in said service session, such that the charge indicated for said particular participant is dependent on a-logically uncombined events indicating the respective change in status of said other participants during said service

session.

37. (previously presented) The apparatus according to claim 36, wherein the charge indicated for said particular participant is dependent on the number of other participants in said service session.

38. (currently amended) The apparatus according to claim 36, wherein the billing records indicating charges for said other participants include data derived from a logically uncombined event indicating the discrete changes in the status of said particular participant in said service session, such that the charges indicated for said other participants are dependent on a logically uncombined event indicating a change in status of said particular participant.

39. (currently amended) The apparatus according to claim 37, wherein the charges indicated for said other participants are dependent only on logically uncombined events indicating respective changes in statuses of the respective participants for which the billing records are produced.

40. (currently amended) The method of notifying a plurality of logically uncombined events to an event handler for processing, the plurality of logically uncombined events occurring during a multi-party service session supported by service

generic code in a communications system, said method comprising:

generating a plurality of event messages during a service session in which a plurality of participants participate, each said event message being generated in response to a logically uncombined event indicating a discrete change which has just occurred in the session-related status of an individual user of the system participant of the plurality of participants, the events indicating each discrete change in the session-related status of at least some of the plurality of participants in the service session; and,

without logically combining the events indicating discrete changes detailed in said event messages, transmitting said event messages to the event handler for processing.

41. (currently amended) An event handler apparatus arranged for use in a communications system comprising a plurality of client side and server side computing elements, each computing element supported by a distributed processing environment whereby distributed software objects in different physical parts of the system interact by passing messages via data communications links, the communications system including service generic code and service specific code, which is distributed between said plurality of computing elements during a service session, wherein the service generic code supports a plurality of differing types of service during a service session, said service generic code when in use comprising a session manager, the session manager being arranged to perform functions generic to said plurality of differing types of service during service sessions;

~~wherein~~ for each type of said differing types of service, said session manager is arranged during a service session in which a plurality of participants participate, to generate an event message in response to a change of a session-related status of an individual participant in the session messages, ~~each event message indicating at least one discrete change which has just occurred in the session-related status of an individual participant in the service session without any historical data, and to transmit said logically~~ uncombined events in respective event messages from at least some of a plurality of participants in the session in response to respective changes in the session-related status of the at least some of the plurality of participants to the event handler apparatus for processing, the event handler apparatus comprising:

receiving means to receive said logically uncombined events in respective event messages transmitted from the session manager; and

processing means to process the received logically uncombined events in the respective event messages.

42. (currently amended) An event handler apparatus arranged to handle a service session having a plurality of participants in a communications network, the event handler comprising:

receiving means arranged to receive a plurality of logically uncombined events transmitted in respective event messages originating from at least some of the plurality of participants in the service session via an event router, wherein the event router is

arranged to receive logically uncombined events in respective event messages pertaining to a number of different sessions ongoing in a service provision support system of said communications network, the event router being arranged to forward said logically uncombined events in respective event messages to each event handling processor arranged to handle the session which generates said event messages, each logically uncombined event in each event message indicating at least one discrete change ~~which has just occurred~~ in a session-related status of a user-participant of the service session, the event message excluding any historical data related to the session-related status associated with said at least one discrete change; and

processor means to process the plurality of logically uncombined events in respective event messages originating from at least some of the participants of the service session.

43. (previously presented) The event handler apparatus as in claim 42, wherein the processor means comprises a pricing data processor arranged to price a participant's usage of a service during a service session.

44. (currently amended) The event handler apparatus as in claim 43, wherein pricing data processor is arranged to perform service-specific processing of said events of respective event messages.

45. (previously presented) The event handler apparatus as in claim 42, wherein the processor means comprises a service usage monitor for storing and/or analysing usage of said services over statistically significant numbers of service session.

46. (previously presented) The event handler apparatus as in claim 42, wherein the processor means comprises a cost data processor for costing a service provided by a third party during a service session.

47. (currently amended) The event handler apparatus as in claim 42, wherein the processor means comprises a session pricing manager arranged to operate a charging algorithm for a service session in a communications network, the session pricing manager being arranged to receive the plurality of events in respective event messages originating from at least some of a plurality of participants of the service session, the event messages being arranged to inform the service session manager of a predetermined set of session-related events, the session pricing manager comprising:

means to filter received logically uncombined events from individual participants in the session to discard logically uncombined events which are not, for the service in question, determinative of price;

means to copy each filtered logically uncombined event to a plurality of pricing engines to be logically combined in accordance with a defined charging algorithm to produce calculated price data for each participation in the session to allow a charge to be

debited from an account of a responsible party for the participation,

wherein the actions, or changes in status, of at least one other participation within the service session is taken into account in the operation of the charging algorithm of the participation in question.

48. (previously presented) The communications system as in claim 20, wherein at least one discrete change indicates at least one of the following events:

- i) a user starting a service session;
- ii) a participant joining an existing service session;
- iii) a participant suspending participation in an existing service session;
- iv) a participant resuming participation in an existing service session;
- v) a participant leaving a service session;
- vi) a participant inviting another user of the system to join a service session;
- vii) a participant advertising a service session generally to users of the system inviting those users to join a service session;
- viii) a user of the system declining an invitation to join a service session;
- ix) a participant withdrawing a general advertisement to users of the system inviting those users to join a service session; and
- x) a service session ending.

49. (currently amended) A communications service provision support

system which supports multiple different types of services during service sessions,

said system when in use comprising a service-session manager which performs functions generic to each of said multiple different types of services during service sessions, said support system being characterized by:

for each of said multiple types of service, said service-session manager being arranged to instantiate a service-generic service session object to control each service-session, the service-generic service session object speech being arranged, during a service session in which a plurality of participants participate to:

generate during the service-session a plurality of service-generic service-session behavior related event messages, each event message indicating an a logically uncombined event containing no history data and comprising, each logically uncombined event indicating a discrete and immediate change in the service-session behavior related status of an individual one of said plurality of participants of the service-session, the logically uncombined events in respective event messages being generated for each of at least some of said plurality of participants; and

transmit said events in the respective event messages being generated for at least some of the plurality of participants to a service-generic event handler for processing;

wherein the service-generic event handler receives the events in the respective event messages from each of said service-generic service session objects.

50. (currently amended) A method of generically notifying service-

generic service-session behavior related events to a service-generic event handler for processing, the events occurring during a plurality of service sessions in which a plurality of participants participate, the service-sessions being provided in a communications service provision support system, said method comprising:

for ~~each~~ at least some of the participants in each service-session, generating during said service-sessions a plurality of said service-generic service-session behavior related event messages, each event message containing ~~an~~ a logically uncombined event containing no history data and comprising a ~~discrete and immediate~~ change in the service-session behavior related status of an individual one of said plurality of participants of the service-session; and

transmitting said plurality of service-generic service-session behavior related event messages each containing a logically uncombined event to a service-generic event handler for processing, from each of said service sessions.

51. (new) A communications system as claimed in claim 20, wherein, for each of said plurality of participants in said service session, a service-session event handler receives a logically uncombined event transmitted in an event message generated in response to each change in the session-related status of at least some said plurality of participants without any historical data.

52. (new) A system as claimed in claim 20, wherein the event handler

comprises a session pricing manager, and wherein each participant joining said service session generates a participation pricing engine, and wherein said session pricing manager filters received events to discard events not determinative of price and copies filtered events to a plurality of pricing engines to be logically combined in accordance with a defined charging algorithm to produce calculated price data for at least some of said plurality of participants in said in said service session, such that the actions of other participants in a service session are taken into account in the operation of the charging algorithm for each individual participant in said service session.

53. (new) The communications system as in claim 20, wherein the service-session event handler receives a logically uncombined event transmitted in an event message generated in response to each change in the session-related status of all of the plurality of participants without any historical data.

54. (new) The session pricing manager apparatus as in claim 32, wherein the logically uncombined events indicate each change in the session-related status of all of the plurality of participants in the session.

55. (new) The communications apparatus as in claim 34, wherein the session pricing manager and the plurality of pricing engines are arranged to generate a plurality of billing records from said logically uncombined events transmitted in the

respective event messages indicating respective discrete changes in the session-related status of all of the participants of the service-session.

56. (new) The apparatus as in claim 36, wherein the charge indicated for said particular participant is dependent on logically uncombined events indicating the respective change in the status of all of the other participants during said service-session.

57. (new) The method as in claim 40, wherein the logically uncombined events indicate each discrete change in the session-related status of all of the plurality of participants in the service-session.

58. (new) The even handler apparatus as in claim 41, wherein the logically uncombined events in respective event messages indicate each change in the session-related status of all of the plurality of participants.

59. (new) The event handler apparatus as in claim 42, wherein the processor means processes the plurality of logically uncombined events in respective event messages originating from all of the participants of the service-session.

60. (new) The communications service provision support system as in claim 49, wherein the logically uncombined events in respective event messages are

generated for all of the plurality of participants.

61. (new) The method as in claim 50, wherein generating service-generic service-session behavior related event messages is performed for all of the participants in each service-session.